

REMARKS/ARGUMENTS

Claims 1, 5, and 9 are amended. No new matter is introduced. Claims 1, 3, 5-10, 13, 14, and 46-49 are pending in the application.

Claim 1 has been amended to overcome the Examiner's rejections in the Final Office Action dated July 16, 2003 and the Advisory Action dated November 14, 2003, which were issued in the parent case. **The scope of claim 1 has been narrowed to cover only those liners of the present invention that have semi-rigid resilient body.** In the Advisory Action, the Examiner indicated that applicants have overcome the Hein anticipation rejection cited in the Final Office Action but maintained his rejection with respect to Ishimaru and Greenhalgh. However, the Examiner only argues that Ishimaru and Greenhalgh describe a flexible liner with cling property. The Examiner makes no arguments with respect to Ishimaru or Greenhalgh teaching or suggesting semi-rigid resilient liners of the present invention that are reversibly deformable.

Indeed, in the present invention, the term "semi-rigid liner" is defined as a **freestanding structure** that can maintain its 3-D shape outside of the container, both when empty and when filled with a sample. A semi-rigid liner of the present invention conforms to the container cavity due to its **resiliency**. According to the present invention, a liner is sufficiently resilient when a deformed liner body returns to its original shape when the deformation force is released and the liner's body does not sustain any irreversible structural damage (page 6, lines 21-27).

Ishimaru does not teach or suggest a semi-rigid liner made of a resilient material that is reversibly deformable. Instead, Ishimaru describes a flexible rotor liner (column 3, line 57). Ishimaru has no teaching whatsoever of semi-rigid materials as defined in the present invention, much less of liners made of such materials and maintaining their 3-D shape outside of the container, both when

empty and when filled with a sample. To the contrary, during centrifugation the liner of Ishimaru stretches downward to form a gap between the annular junction 84 and the upper portion 72 of the liner (column 3, line 56 – column 4, line 5). Ishimaru relies on stretching ability and “springiness” of its liner during centrifugation to allow separation of different fractions of a sample (column 4, lines 4-14 and 41-46). Thus, the liner of Ishimaru is not a semi-rigid liner as defined in the present invention.

Similarly, Greenhalgh does not teach or suggest a semi-rigid liner made of a resilient material that is reversibly deformable. Instead, Greenhalgh teaches a flexible liner for a container that conforms to the container’s cavity only when filled with a solution (column 3, lines 25-33 and Figure 3). The flexible liner of Greenhalgh is not a freestanding structure and cannot maintain its 3-D shape outside of the container.

Therefore, nothing in Ishimaru or Greenhalgh would have motivated one skilled in the art to arrive at semi-rigid resilient liners of the present invention. Accordingly, claim 1, as amended, is patentable over Ishimaru and Greenhalgh. Claims 3, 5-6, and 13-14 depend, directly or indirectly, from claim 1 and are, therefore, patentable over Ishimaru and Greenhalgh for at least the same reasons as claim 1.

Additionally, applicants amended claim 9 of the present invention by rewriting it in an independent form and by clarifying that a removable internal support structure for restraining the body of the liner within the centrifuge container during centrifugation is positioned inside the liner cavity. Ishimaru and Hein references have been cited by the Examiner against the original claim 9 in the parent case. Since Hein reference has been overcome, applicants will only discuss Ishimaru.

Ishimaru does not anticipate claim 9 because he does not teach an internal support structure. Instead, Ishimaru describes a flexible rotor liner (64), which is secured inside rotor cavity (54, 56) by threading cover (52) of the rotor assembly onto the lower section 50 of the rotor assembly (column 3, lines 1-5 and 32-37). Thus, the liner of Ishimaru is secured by an external structure.

Ishimaru does not make the instant claim 9 obvious. Nothing in Ishimaru suggests internal support structures for restraining the body of the liner within the centrifuge container during centrifugation, which is positioned inside the interior cavity of the liner. To the contrary, Ishimaru relies on stretching ability and "springiness" of its liner during centrifugation to allow separation of different fractions of a sample in its compartments (column 4, lines 4-14 and 41-46). An internal rigid support structure of the present invention would have prevented the movement of the liner of Ishimaru inside the rotor cavity and proper separation/collection of different fractions of a sample. Therefore, nothing in Ishimaru would have motivated one skilled in the art to arrive at assembly of the present invention comprising a removable liner and a removable internal support structure positioned inside an interior cavity of the liner.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Examination of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6700 to discuss the steps necessary for placing the application in condition for allowance.

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Respectfully submitted,
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